

1. A modular pressure infuser apparatus for applying pressure to an infusate bag to facilitate the delivery of an infusate fluid to a patient, the pressure infuser apparatus comprising:

a pressure infuser bag module having a pressure infuser bag for applying pressure to the infusate bag; and

a plurality of pump modules for inflating the pressure infuser bag, at least one of the plurality of pump modules being removable to permit the user to select the configuration of the pressure infuser apparatus that is best adapted to the needs of the patient.

2. The modular pressure infuser apparatus of claim 1, wherein the plurality of pump modules comprises:

a motorized pump module; and

a manual pump module.

3. The modular pressure infuser apparatus of claim 2, further comprising a coupler mechanism.

4. The modular pressure infuser apparatus of claim 2, further comprising a plurality of coupler mechanisms.

5. The modular pressure infuser apparatus of claim 3, wherein the coupler mechanism couples the pressure infuser bag module to the motorized pump module.

6. The modular pressure infuser apparatus of claim 3, wherein the coupler mechanism couples the pressure infuser bag module to the manual pump module.

7. The modular pressure infuser apparatus of claim 3, wherein the coupler mechanism comprises a luer coupler.

8. The modular pressure infuser apparatus of claim 7, wherein the coupler has a first component and a second component.

9. The modular pressure infuser apparatus of claim 8, wherein one of the first components and the second components is coupled to the pressure infuser bag module.

10. The modular pressure infuser apparatus of claim 8, wherein one of the first components or second components is coupled to the motorized pump module.

11. The modular pressure infuser apparatus of claim 10, wherein the coupler permits the user to selectively detach the motorized pump module from the pressure infuser bag module.

12. The modular pressure infuser apparatus of claim 8, wherein one of the first components or second components is coupled to the manual pump module.

13. The modular pressure infuser apparatus of claim 12, wherein the coupler permits the user to selectively detach and/or attach the manual pump module from the pressure infuser bag module.

14. The modular pressure infuser apparatus of claim 12, wherein the coupler permits the user to selectively detach and/or attach the manual pump module from/ to the motorized pump module.

15. A modularized pressure infuser apparatus for applying pressure to an infusate bag to facilitate the delivery of an infusate fluid to a patient, the modularized pressure infuser apparatus allowing a user to modify the configuration of the modularized pressure infuser apparatus to correspond to the infusion needs of the patient, the pressure infuser apparatus comprising;

a pressure infuser bag module having a pressure infuser bag for applying pressure to the infusate bag, the pressure infuser bag module adapted to be coupled to one or more pump modules;

a motorized pump module having a motorized pump for inflating the pressure infuser bag, the motorized pump module being selectively removable from the pressure infuser bag module;

a manual pump module having a manual pump for inflating the pressure infuser bag, the motorized pump module being selectively removable from the pressure infuser bag module; and

a pressure relief valve for preventing the pressure of the pressure infuser bag from exceeding a given pressure, the pressure relief valve being coupled to the pressure infuser bag module in each of the selected configurations.

16. The modularized pressure infuser apparatus of claim 15, wherein the pressure relief valve includes an indicia for indicating the pressure of the infuser bag.

17. The modularized pressure infuser apparatus of claim 15, wherein the pressure relief valve includes a plurality of indicia for indicating the pressure of the infuser bag.

18. The modularized pressure infuser apparatus of claim 17, wherein the indicia comprise a plurality of lines for indicating increasing pressures of the pressure infuser bag.

19. The modularized pressure infuser apparatus of claim 17, wherein a first indicia indicates that the pressure in the pressure infuser bag is greater than 100 millimeters mercury, a second indicia indicates that the pressure in the pressure infuser bag is greater than 200 millimeters mercury, and a third indicia indicates that the air pressure in the pressure infuser bag is greater than 300 millimeters mercury.

20. The modularized pressure infuser apparatus of claim 15 wherein the pressure relief valve releases air when the pressure in the pressure infuser bag exceeds 300 millimeters mercury.

21. A pressure infuser apparatus for applying pressure to an infusate bag to facilitate the delivery of an infusate to a patient, the pressure infuser apparatus comprising:

a pressure infuser bag for applying pressure to the infusate bag;
and

a coupler adapted to permit the user to attach and remove pumps
of different types to the pressure infuser bag.

22. The pressure infuser apparatus of claim 21, wherein the pumps are indirectly attached to the pressure infuser bag.

23. The pressure infuser apparatus of claim 21, further comprising a pump adapted to be coupled to the pressure infuser bag.

24. The pressure infuser apparatus of claim 21, further comprising a plurality of interchangeable pumps for inflating the pressure infuser bag, wherein the user can select the configuration of the pressure infuser apparatus to satisfy to the needs of the patient.

25. The pressure infuser apparatus of claim 24, wherein the plurality of interchangeable pumps modules comprise:

a motorized pump module; and
a manual pump module.

26. The pressure infuser apparatus of claim 25, wherein the manual pump comprises a compressible bulb.

27. The pressure infuser apparatus of claim 25, wherein the manual pump comprises a billows pump.

28. The pressure infuser apparatus of claim 25, wherein the manual pump comprises a foot pump.

WORKMAN NYDEGGER
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
1000 EAGLE GATE TOWER
60 EAST SOUTH TEMPLE
SALT LAKE CITY, UTAH 84111

29. A pressure infuser apparatus for applying pressure to an infusate bag to facilitate delivery of an infusate fluid to a patient, the pressure infuser apparatus comprising:

a pressure infuser bag module having a pressure infuser bag for applying pressure to the infusate bag and a single tube for inflating the infuser bag; and

two or more pumps for inflating the pressure infuser bag, the two or more pumps being coupled to the tube of the pressure infuser bag module.